IDEA-0501-67
Copy 10 of 10

28 July 1967

MEMORANDUM FOR : Deputy for Operations

SUBJECT : Review of Mission C237C

1. Of the 27 photo interpretations listed on the IPIR, four are characterized as good quality, six are termed fair and 17 poor. All four of the good ones identified the weather as clear. Of the six fair ones, all but one listed scattered clouds and haze present; the sixth one was characterized as clear. The remaining 17 which were termed poor gave heavy clouds, cloud shadows and haze for the weather except in three instances when the weather was termed clear even though the interpretability was poor. It is further noted that [redacted] original read-out recorded 19 good, 31 fair and 20 poor for 70 targets. 25X1A

2. It is noted that Item 23 was interpreted from the same photographs as Item 25 although the weather for Item 23 was termed clear while the same photographs were termed scattered clouds for Item 25. This might well be the case since targets of interest might lie in areas of clear weather in one portion of the photography while other targets are obscured by scattered clouds on the same photography. It is noted only to point up the subjective nature of the weather term and to emphasize the hazard of drawing conclusions from such poorly defined terms.

3. The general conclusions of the photo interpreters who examined this photography is that:

A. The density of the dupe positives was higher than similar photography examined in the past. Whether this is due to excessive exposure or to excessive haze, they had no opinion on. The exposure was the same (1/150 sec f/16 and minus blue filter) as on previous missions of good quality. 25X1A

B. The imagery was quite grainy in the dupe positive. The original negative has been shipped to [redacted] for production of 2nd D.P.'s; hence, is not available for

comparison. Excessive grain structure has been noted in the past when excessive haze was encountered.

C. There was no evidence of camera malfunction or image smear due to aircraft induced vibration except when the vehicle was in a steep bank, a condition that is beyond the capability of the camera to compensate.

4. In straight and level flight at 70,000' the adjacent exposures in Mode I, identified as vertical, 1 left 1 right, 2 left 2 right and 3 left 3 right are respectively--on the flight path--5 N.M. right or left--14 N.M. right or left--and 38 N.M. right or left of the flight path. The resolution of the 2nd and 3rd obliques is considerably less than that of the vertical and the 1st oblique, due simply to the distance from the flight path but the presence of haze degrades the imagery even more, since the optical path is traversing several layers of variable density haze at an oblique angle.

5. Reference to the attached tabulation of targets reported on mission C237C reveals that imagery that was interpreted from the 2nd and 3rd obliques is generally characterized as poor quality while that interpreted from the vertical and 1st oblique is termed good or fair. The exceptions to the above, items 22, 23 and 25 list a surprising number of detailed interpretations that would be difficult to identify on "poor" photography. It therefore seems apparent that the quality designation "good", "fair" or "poor" is a term used by the photo interpreter to describe his ability to identify what he is looking for. That is, a photograph used for counting trucks and anti aircraft armament might be good or even excellent whereas the same photo used to distinguish different types of armament or dummies from real ones would be termed poor. On the other hand an experienced photo interpreter, recognizing that this condition is true, would characterize the overall quality of a mission in terms of "better than" or "not as good as" the best mission that he had previously seen from the same configuration.

6. My conclusion therefore is that mission C237C was less than optimum due to haze, clouds, and obliquity. Efforts in the past to alleviate the condition by using a red filter instead of the yellow one results in somewhat better resolution in the high oblique frames at the expense

of greater contrast in the vertical and low obliques which tends to underexpose the dark green vegetation of jungle terrain and reduce the resolution in cloud shadows. It is therefore recommended that we continue with the present settings, recognizing that they are not optimized for all conditions.

SIGNED

[redacted] 25X1A

Sensor Systems Division
Special Activities

Attachment - 1
As noted

25X1A SSD/R&D/OSA/[redacted]sjs (28 July 1967)

Distribution:
1 - SSD/R&D/OSA w/att
2 - D/R&D/OSA w/att
3 - D/SA w/att
4 - DD/SA w/att
5 - D/O/OSA w/att
6 - D/M/OSA w/att
7 - Compt/OSA w/att
8 - INTEL/O/OSA w/att
9 - SSD/R&D/OSA w/att (Chrono)
10 - RB/OSA w/att

MISSION C237C

ITEM	QUALITY	WEATHER	FRAME IDENTITY
01	FAIR	HAZE	3R, 2R, 3L, 2L
02	FAIR	HAZE	2R, 2R
03	FAIR	SCAT CLDS	3R, 3R, V, V, V, 2L, 3L
04	POOR	CLD SHDW	3R, 3R, 2R, 2L, 2L
05	POOR	SCAT CLD	3R, 3R
06	POOR	SCAT CLD	2R, 2R, 2R, 2L
07	POOR	HAZE	2L
08	POOR	HV CLD	3R
09	POOR	SCAT CLD	3R.
10	GOOD	CLEAR	1R, 1R
11	GOOD	CLEAR	1L, V, V, V
12	POOR	HV CLD	V, V
13	FAIR	SCAT CLD	1L, 1L
14	GOOD	CLEAR	1R, 1R, 1L, 1L
15	GOOD	CLEAR	1R, 1R, 1L, 1L
16	POOR	CLEAR	2R, 2R, 2R
17	POOR	HAZE	3R, 3R, 3R, 3L
18	POOR	HAZE	2L
19	POOR	HAZE	2L
20	POOR	HAZE	2L
21	FAIR	CLEAR	V, V, V
22	POOR	CLEAR	V, V, V
23	POOR	CLEAR	V, V, V, 3L, 1L, 3L

ITEM	QUALITY	WEATHER	FRAME IDENTITY
24	FAIR	SCAT CLDS	2L, 3L, 3L
25	POOR	SCAT CLDS	V, V, V, 3L, 1L, 1R, 3L
26	POOR	SCAT CLDS	2R, 2R, 2R, 2L, 2L
27	POOR	HV CLDS	2L, 2L, 2L, 2R, 3R, 3R

17 POOR
6 FAIR
4 GOOD

NPIC READOUT

19 GOOD
31 FAIR
20 POOR

[redacted] READOUT

25X1A